Request to Archive
With The National Centers for Environmental Information
For Climate Forecast System Operational v2 (CFSv2) - Rerun #1
Provided by NOAA/NWS/NCEP/EMC

2016-04-07

This information will be used by NCEI to conduct an appraisal and make a decision on the request.

1. Who is the primary point of contact for this request?

Jeff Budai

NCDC

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2. Name the organization or group responsible for creating the dataset.

NWS NCEP EMC/CPC

3. Provide an overview summarizing the scope of data you want to archive. Describe the outputs, data variables, including their measurement resolution and coverage.

The Climate Forecast System Operational v2 (CFSv2) system is a coupled atmospheric-ocean-land-sea-ice model that contains 6-hourly forecasts, and seasonal 45-day and 9-month output in GRIB format. The data is already described as part of Submission Agreement (SA) of 2009/10 and 2014/06.

This particular dataset is for a rerun of the model with a period of record from August 2013 through March 2016. Only monthly means and time series are to be archived. These new data will be equivalent to the following archived datasets (DSI's and datatypes):

DSI 200101 "CFSv2 Operational Forecast"

    cfsv2_forecast_mm_9mon
    cfsv2_forecast_ts_9mon

DSI 200201 "CFSv2 Operational CDAS"

    cfsv2_analysis_monthlymeans_egy
    cfsv2_analysis_monthlymeans_flx
    cfsv2_analysis_monthlymeans_ipv
    cfsv2_analysis_monthlymeans_ocn
    cfsv2_analysis_monthlymeans_pgb
    cfsv2_analysis_timeseries

The total volume of these data is about 40TB. More information (to be added to the metadata record) on the nature of the rerun is expected from the producer.

4. What is the time period covered by the dataset? (YYYY-MM-DD, YYYY-MM or YYYY)
From 2013-08-01 to 2016-03-31

5. Edition or version number(s) of the dataset:
v2

6. Approximate date when the dataset was or will be released to the public:
2016-06-01

7. Who are the expected users of the archived data? How will the archived data be used?
Researchers, improving model output thereby improving NWS skill for life and property. Hydrological community, the climate analysis community, private sector (commodities/trading/reinsurance-Wall street)...

8. Has the dataset undergone user evaluation and/or an independent review process? Did NCEI participate in design reviews?
NOAA Science Advisory Board, NWS TAFF's, NOAA Operational / Reanalysis Steering group

9. Describe the dataset's relationship to other archived datasets, such as earlier versions or related source data. If this is a new version, how does it improve upon the previous version(s)?
This rerun of data is an improvement to the model which needed correction. Ingest of CFSv2 Operational data is ongoing at NCEI.

10. List the input datasets and ancillary information used to produce the data.
See CFSv2 documentation on data assimilation.

11. List web pages and other links that provide information on the data.
http://cfs.ncep.noaa.gov/cfsr/docs/
http://nomads.ncdc.noaa.gov/data.php?name=access#cfs

12. List the kinds of documents, metadata and code that are available for archiving. For example, data format specifications, user guides, algorithm documentation, metadata compliant with a standard such as ISO 19115, source code, platform/instrument metadata, data/process flow diagrams, etc.
1. CFSRR and CFSv2 Operational SA's between NCEI and NCEP

13. Indicate the data file format(s).
1. GRIB 2

14. Are the data files compressed?
No

15. Provide details on how the files are named and how they are organized (e.g., file_name_pattern_YYYYMM.tar in monthly aggregations).
Files will be named similar to the June 2014 SA for Operational CFSv2 data, but adding a "_rerun" tag to denote the rerun:

cfsv2_rerun_mm_9mon_YYYYmmddHH.tar
cfsv2_rerun_ts_9mon_YYYYmmddHH.tar
cdas_rerun_monthly_mm_egy_YYYYmm.tar

cdas_rerun_monthly_mm_flx_YYYYmm.tar
cdas_rerun_monthly_mm_ipv_YYYYmm.tar
cdas_rerun_monthly_mm_ocn_YYYYmm.tar
cdas_rerun_monthly_mm_pgb_YYYYmm.tar
cdas_rerun_monthly_ts_YYYYmm.tar

16. Explain how to access sample data files and/or a file listing for previewing. If it is not available now, when will it be available?

Earlier CFSv2 data are available via NOMADS

17. What is the total data volume to be submitted?

<u>Historic Data: all historic data or data submitted as a completed collection.</u>

Total Data Volume: 40TB

Number of Data Files: 2520

18. Are later updates, revisions or replacement files anticipated? If so, explain the conditions for submitting these additional data to the archive.

No additional updates, revisions or replacement data are anticipated.

19. Describe the server that will connect to the ingest server at NCEI for submitting the data.

Physical Location: College Park, MD

System Name: Zeus /HPSS

System Owner: NCEP/EMC

Additional Information:

20. What are the possible methods for submitting the data to NCEI? Select all that apply.

1. FTP PUSH

21. Identify how you would like NCEI to distribute the data. Web access support depends on the resources available for the dataset.

1. User interface to order and stage data for download
2. Direct download links
3. Advanced web services (e.g., THREDDS Catalog Service)

22. Will there be any distribution, usage, or other restrictions that apply to the data in the archive?

No known constraints apply to the data.

23. Discuss the rationale for archiving the dataset and the anticipated benefits. Mention any risks associated with not archiving the dataset at NCEI.

This data is being heavily requested by the research and private sector community to improve both climate and weather forecasting for the U.S. It is also being requested to satisfy OAR's Research MAPP program- that funds the NOMADS/NCMP Projects. It has also been requested by the UofMD CIRUN program and the NOAA Climate Testbed.

24. Are the data archived at another facility or are there plans to do so? Please explain.

No

25. Is there an existing agreement or requirement driving this request to archive? Have you already contacted someone at NCEI?

NCEI currently archives Operational CFSv2 data. OAR funding for FY2016 is driving this request.

26. Do you have a data management plan for your data?

No

27. Have funds been allocated to archive the data at NCEI?

OAR funding for FY2016 is driving this request.

28. Identify the affiliated research project, its sponsor, and any project/grant ID as applicable.

NOMADS and NCMP. Climate Program Office

29. Is there a desired deadline for NCEI to archive and provide access to the data?

Archive by: 2016-09-01
Accessible by: 2016-09-01

30. Add any other pertinent information for this request.

None